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April 9, 1840.

The MARQUIS of NORTHAMPTON, President, in the Chair.

John P. Gassiot and Thomas Henderson, Esqrs., were balloted for, and duly elected into the Society.

The reading of a paper, entitled, "On the Nervous System." By Sir Charles Bell, F.R.S., was resumed and concluded.

The author adverting to the papers on the nervous system, which he presented to the Royal Society nearly twenty years ago, recapitulates the train of reasoning which originally led him to the inquiries in which he has been so long engaged, on the different functions of different classes of nerves, and adduces various pathological facts in corroboration of the correctness of the views he then entertained. With regard to the spinal nerves, cases are related where, in consequence of disease of the bodies of the vertebræ, the anterior columns of the spinal cord, and anterior roots of the nerves were affected, and paralysis of the muscles to which those nerves are distributed was produced, while the posterior column of the cord was uninjured, and the sensibility unimpaired. The author next considers the respiratory system of nerves, which he regards as being both muscular and sensitive, and describes as arising from a tract of the spinal cord, on the outside of the *corpus olivare*, and anterior to the *processus ad cerebellum*; and which constitute columns having no decussations with one another, as is the case with the other systems. The conclusion he originally formed, that both the phrenic and the spinal accessory nerves are provided for motion, which he had deduced from the anatomical fact of the former taking a direct course to the diaphragm, and the latter a circuitous one for the purpose of associating the muscles of the respiratory organs with those which act on the chest, is, he thinks, amply confirmed by subsequent experiments. He concludes his paper with some remarks on the supply of blood to the respiratory system of nerves, which supply, being derived from branches of the vertebral arteries, affords an explanation of several pathological phenomena.

A paper was also read, entitled, "On the constitution of the Resins. Part IV." By James F. W. Johnston, Esq., M.A., F.R.S.

This paper contains the account of the continuation of the author's previous researches into the constitution of the resins, both as they occur in nature, and as they appear when extracted from the natural products by the agency of alcohol or ether. The great difficulty in this inquiry is to determine when the resin to be analysed is obtained in its normal state; and the author has endeavoured in each case to ascertain this point by repeated analyses of the resins prepared under different conditions. He thus arrives at the conclusion, that the resin of scammony extracted from crude scammony by alcohol, and heated to 260° Fahr., is represented by $C_{40}\ H_{33}\ O_{20}$, con-